



Recombinant Protein Technical Manual  
Recombinant Mouse Syndecan-4/SDC4 Protein (aa  
2445, His Tag)  
RPES5014

### Product Data:

**Product SKU:** RPES5014

**Size:** 10µg

**Species:** Mouse

**Expression host:** Human Cells

**Uniprot:** O35988

### Protein Information:

**Molecular Mass:** 14.4 kDa

**AP Molecular Mass:** 24 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB,150mM NaCl,pH7.4.

**Reconstitution:** Please refer to it for detailed information.

**Application:**

**Synonyms:** AA959608;AW108331;ryudocan;Synd4;syndecan-4;SDC4;SYND4;Ryudocan core protein

## Immunogen Information:

**Sequence:** Glu24-Glu145

## Background:

Mouse SDC4 is a ubiquitous transmembrane proteoglycan which belongs to the syndecan proteoglycan family. SDC4 is a cell surface proteoglycan that bears heparan sulfate. The four vertebrate syndecans, Syndecan through -4, have similar short cytoplasmic domains and extracellular portions that diverge, except for HS attachment sites. Structurally diverse side chains add considerably to the size of the core proteins and serve as binding sites for growth factors, cytokines, and extracellular matrix proteins. Syndecans are present as homodimers or multimers, and are often expressed in developmental and cell type-specific patterns. It is expressed highly in liver, kidney and lung. SDC4 localizes to the focal adhesions of adherent cells and binds to a range of extracellular ligands, including growth factors and extracellular-matrix proteins. Through its extracellular domain, syndecan-4 cooperates with adhesion molecules and binds matrix components relevant for cell migration. As a heparan sulfate proteoglycan, SDC4 works as a coreceptor for various growth factors. Syn4 deficiency limits neointimal formation after vascular injury by regulating vascular smooth muscle cells (VSMCs) proliferation and vascular progenitor cells (VPCs) mobilization. SDC4 have an array of functions including regulating cell growth, differentiation, and adhesion.